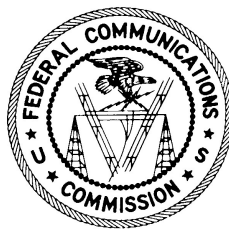


# **Voice Telephone Services: Status as of June 30, 2018**

Industry Analysis Division  
Office of Economics and Analytics  
March 2020



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## Voice Telephone Services: Status as of June 30, 2018

### Introduction

The Commission has used FCC Form 477 to collect subscribership information from providers of voice telephone services – incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs), and mobile voice providers – since December 1999.<sup>1</sup> The Commission has required interconnected Voice over Internet Protocol (“interconnected VoIP”) service providers to report subscribership information since December 2008.<sup>2</sup> Also, starting with the data reported for 2014, Form 477 has been modified to distinguish “over-the-top” (colloquially, “bring your own broadband”) interconnected VoIP subscriptions from other interconnected VoIP subscriptions.<sup>3</sup>

### Comparison to Local Telephone Competition Report

This report was previously titled *Local Telephone Competition*. Reports under the earlier title summarized Form 477 data through December 31, 2013. Reports under the current title provide much of the summarized data as supplemental spreadsheet files, available at <https://www.fcc.gov/voice-telephone-services-report>. A crosswalk between data elements in this report and data elements in the *Local Telephone Competition* report is available at that page.

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<sup>1</sup> An Incumbent Local Exchange Carrier is an entity that was providing local exchange telephone service in a particular area on February 8, 1996, the date on which the Telecommunications Act of 1996 was enacted into law. See 47 C.F.R. § 51.5.

<sup>2</sup> The FCC’s rules (at 47 C.F.R. § 9.3) state:

An interconnected Voice over Internet Protocol (VoIP) service is a service that:

- (1) Enables real-time, two-way voice communications;
- (2) Requires a broadband connection from the user’s location;
- (3) Requires Internet protocol-compatible customer premises equipment (CPE); and
- (4) Permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.

We note that the current interpretation of element (4) of the definition excludes certain VoIP services (e.g., those offered by Skype) and subscribers to those services are not reported on Form 477.

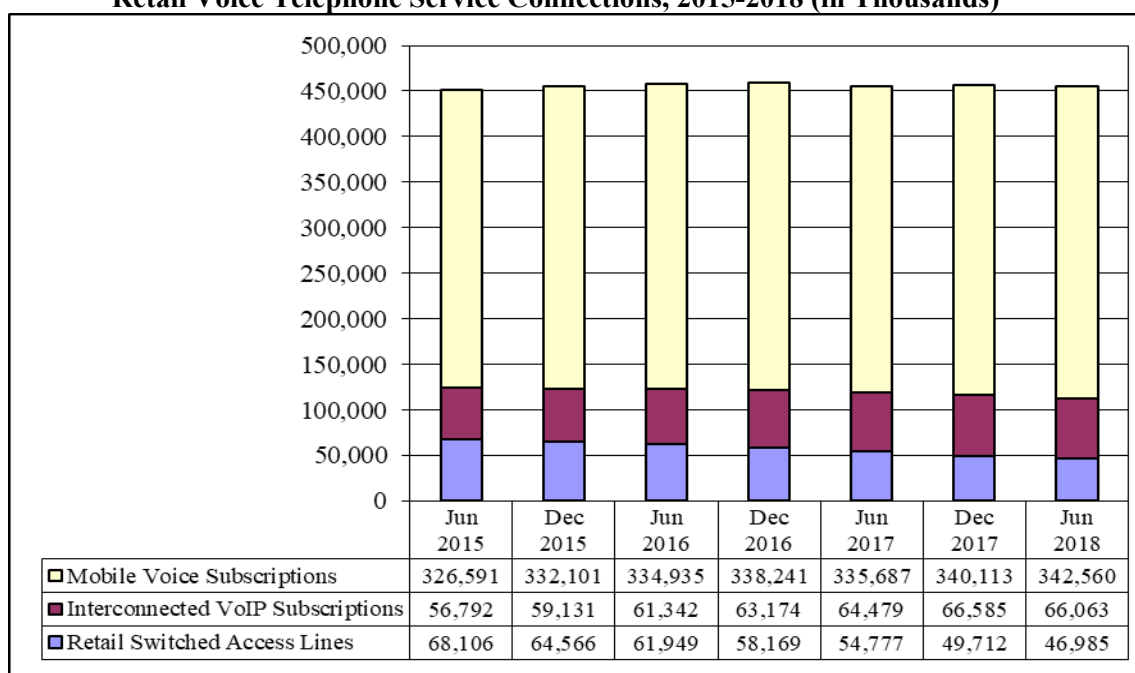
<sup>3</sup> The Technical Notes and the Glossary that appear at the end of this report provide more-detailed information about the current Form 477 and the meaning of terms used in this report. To be consistent with modifications to Form 477 adopted in 2013 (to be effective for reporting June 2014 and later data), this report no longer uses the terms “standalone VoIP” and “broadband bundle.” Standalone VoIP in the earlier, *Local Telephone Competition*, reports has a different meaning from “over-the-top” VoIP in this report. In particular, subscriptions reported as standalone VoIP for December 2013 and earlier dates included over-the-top subscriptions as defined in this report and also video-plus-VoIP service subscriptions sold by cable TV system operators and other entities that own last-mile facilities to end-user premises. We note that, accordingly, 13% of total interconnected VoIP subscriptions were categorized as standalone VoIP in December 2013 and, by contrast, 10% of total interconnected VoIP subscriptions were categorized as over-the-top VoIP in December 2014.

## Retail Voice Telephone Service Connections

Retail voice telephone service customers are served by two wireline technologies – end-user switched access lines and interconnected VoIP subscriptions – and by mobile wireless subscriptions.<sup>4</sup>

- In June 2018, there were 47 million end-user switched access lines in service, 66 million interconnected VoIP subscriptions, and 343 million mobile subscriptions, for a total of 456 million retail voice telephone service connections in the United States. See Figure 1.
- Over the three-year period presented in Figure 1, interconnected VoIP subscriptions increased at a compound annual growth rate of 5%, mobile voice subscriptions increased at a compound annual growth rate of 2%, and retail switched access lines declined at a compound annual growth rate of 12% per year.<sup>5</sup>

**Figure 1**  
**Retail Voice Telephone Service Connections, 2015-2018 (in Thousands)**



Note: Some previously published data have been revised.

- Of the 113 million wireline retail voice telephone service connections (including both switched access lines and interconnected VoIP subscriptions) in June 2018, 58 million (or 51%) were residential connections and 55 million (or 49%) were business connections.<sup>6</sup> See Figure 2.

<sup>4</sup> The presentation of mobile wireless telephone subscriber counts in this report does not constitute, or imply, Commission analysis of the extent to which wireline and mobile wireless telephone services are demand substitutes or complements in general or in any particular situation.

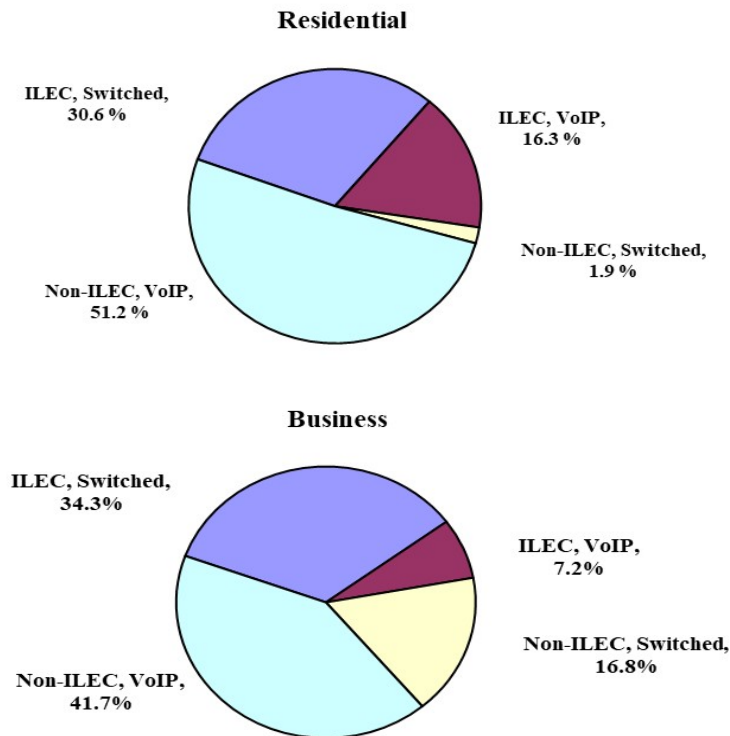
<sup>5</sup> The compound annual growth rate (CAGR) is a smoothed rate of growth calculated in three steps. First, divide the ending value by the beginning value. Second, raise the result of that division to a power equal to one divided by the number of years in the period (in this case, 3 years, so the power is 1/3). Third, subtract the number one from the result of the second step.

<sup>6</sup> FCC Form 477 does not distinguish between residential and business subscribers to mobile *voice* service. The information that Form 477 collects about mobile *broadband* service is summarized elsewhere; see *Internet Access Services Reports*, available at <https://www.fcc.gov/internet-access-services-reports>.

**Figure 2**  
**Wireline Retail Voice Telephone Service Connections by Technology, Regulatory Status,**  
**and Customer Type as of June 30, 2018 (in Thousands)**

<b>Total</b>	<b>Switched Access Lines</b>	<b>Interconnected VoIP</b>	<b>Total</b>
ILEC	36,669	13,424	50,093
Non-ILEC	10,316	52,638	62,955
<b>Total</b>	<b>46,985</b>	<b>66,063</b>	<b>113,047</b>
<b>Residential</b>			
ILEC	17,774	9,457	27,231
Non-ILEC	1,088	29,699	30,787
<b>Residential Total</b>	<b>18,862</b>	<b>39,156</b>	<b>58,018</b>
<b>Business</b>			
ILEC	18,895	3,967	22,862
Non-ILEC	9,228	22,940	32,168
<b>Business Total</b>	<b>28,123</b>	<b>26,906</b>	<b>55,030</b>

Note: Figures may not sum to totals due to rounding. A voice service affiliate of an ILEC that is operating outside of the ILEC's traditional service area ("study area") is a Non-ILEC.



- Cross-classified by technology and the retailer’s regulatory status in Figure 2, the 58 million wireline residential connections in June 2018 were: 30.6% ILEC switched access lines, 51.2% non-ILEC interconnected VoIP subscriptions, 16.3% ILEC interconnected VoIP subscriptions, and 1.9% non-ILEC switched access lines. Similarly, the 55 million wireline business connections were: 34.3% ILEC switched access lines, 41.7% non-ILEC interconnected VoIP subscriptions, 7.2% ILEC interconnected VoIP subscriptions, and 16.8% non-ILEC switched access lines.

## **Retail Service Relationships**

The revised Form 477 collects two types of information about retail service relationships.

- Interconnected VoIP service retailers distinguish over-the-top (“OTT”) interconnected VoIP subscriptions—where the end user accesses the service using a broadband connection from an entity that is not affiliated with the VoIP service retailer—from all other interconnected VoIP subscriptions.<sup>7</sup> See Figure 3.
- Retailers of switched access lines and retailers of interconnected VoIP service distinguish between sales to end users who also purchase Internet access from them (including affiliates) and those who do not. See Figure 4.

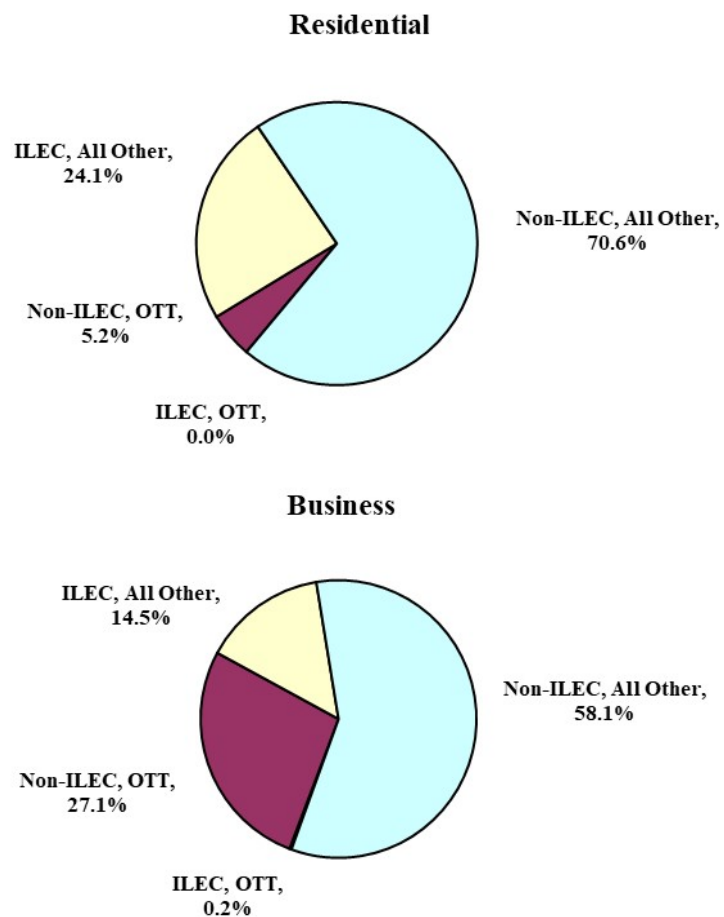
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<sup>7</sup> A broadband connection may or may not provide the end user with internet access.

**Figure 3**  
**Interconnected VoIP Subscribership by Reported Service Features, Regulatory Status,**  
**and Customer Type as of June 30, 2018 (in Thousands)**

<b>Total</b>	<b>Over-the-Top (OTT)</b>	<b>All Other VoIP</b>	<b>Total</b>
ILEC	67	13,357	13,424
Non-ILEC	9,344	43,295	52,638
<b>Total</b>	<b>9,411</b>	<b>56,652</b>	<b>66,063</b>
<b>Residential</b>			
ILEC	2	9,455	9,457
Non-ILEC	2,049	27,650	29,699
<b>Residential Total</b>	<b>2,051</b>	<b>37,105</b>	<b>39,156</b>
<b>Business</b>			
ILEC	65	3,902	3,967
Non-ILEC	7,295	15,644	22,940
<b>Business Total</b>	<b>7,360</b>	<b>19,546</b>	<b>26,906</b>

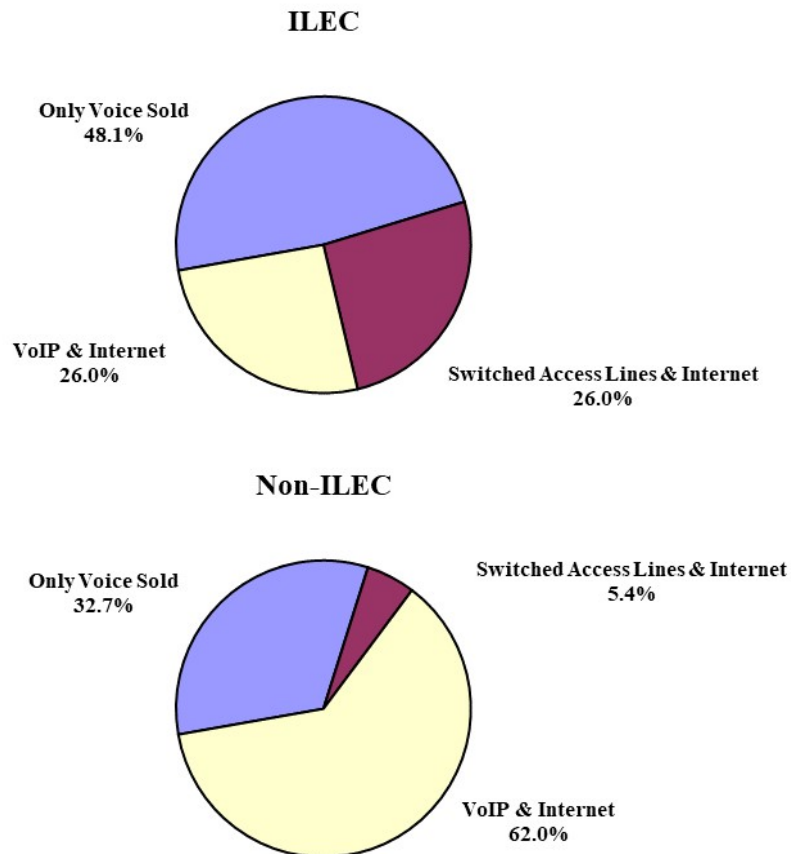
Note: Figures may not sum to totals due to rounding.



**Figure 4**  
**Retail Relationships of Wireline Voice Telephone Service with Internet Access Service**  
**By Regulatory Status as of June 30, 2018 (in Thousands)**

<b>Total</b>	<b>ILEC</b>	<b>Non-ILEC</b>	<b>Total</b>
Switched Access Lines	36,669	10,316	46,985
Over-the-Top VoIP	67	9,344	9,411
All Other VoIP	13,357	43,295	56,652
<b>Total</b>	<b>50,093</b>	<b>62,955</b>	<b>113,047</b>
<b>Sold with Internet</b>			
Switched Access Lines	13,006	3,378	16,384
Over-the-Top VoIP	0	0	0
All Other VoIP	13,000	39,013	52,013
<b>Total</b>	<b>26,006</b>	<b>42,391</b>	<b>68,397</b>
<b>Sold Without Internet</b>			
Switched Access Lines	23,663	6,938	30,601
Over-the-Top VoIP	67	9,344	9,411
All Other VoIP	357	4,282	4,639
<b>Total</b>	<b>24,087</b>	<b>20,564</b>	<b>44,650</b>

Note: Figures may not sum totals due to rounding.





## Detailed Voice Telephone Services Data

- Table 1 summarizes national-level voice telephone service subscription data for June and December 2017, and for June 2018, for individual data elements collected by FCC Form 477.
- Table 2 shows the number of entities that reported the national-level subscription data for June and December 2017, and for June 2018.

Table 1 and Table 2 are available in Excel format at <https://www.fcc.gov/voice-telephone-services-report>. Also available at that page are:

- State-level Subscriptions table in Excel format (data back to June 2017)
- State-level Number of Providers table in Excel format (data back to June 2017)
- County-level Subscriptions information in Excel format (data back to June 2014)
- CSV-format file of the consistent data series that are available back to December 2008, when interconnected VoIP retailers were first required to report subscription information on Form 477.

Earlier data, back to December 1999, are available in the Local Telephone Competition reports at <https://www.fcc.gov/general/local-telephone-competition-reports>. However, researchers using the complete data series for trend analysis should be aware of the following discontinuities in the data.

- Between December 1999 and December 2004, Form 477 collected state-by-state data only from local exchange carriers with at least 10,000 end-user switched access lines in service in the state, and from facilities-based mobile voice carriers with at least 10,000 mobile voice subscriptions in service in the state.
- Prior to December 2008, interconnected VoIP service retailers were not required to submit Form 477, but an unknown amount of interconnected VoIP service was included along with the switched access lines reported by some Form 477 filers.
- As discussed earlier in this report, the category standalone interconnected VoIP that was reported from December 2008 to December 2013 is different (that is, includes more subscriptions) than the category over-the-top interconnected VoIP that is reported starting with the June 2014 data.<sup>8</sup>

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<sup>8</sup> See footnote 3, above.

**Table 1. Voice Subscriptions (in Thousands) - Total for US**

Reference	Data element	June 2018	Dec 2017	June 2017
1	Mobile telephony	342,560	340,113	335,687
2	Directly-billed or prepaid	303,993	301,362	296,494
3	Not directly-billed or prepaid	38,567	38,752	39,192
4	Wireline End-User Switched Access Lines and Interconnected VoIP Subscriptions	113,047	116,297	119,256
5	Incumbent LECs	50,093	53,022	55,786
6	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	62,955	63,275	63,470
7	Consumer-grade service	58,018	60,440	62,631
8	Incumbent LECs	27,231	28,964	31,094
9	Other (Non-ILECs)	30,787	31,476	31,537
10	Business & Government-grade service	55,030	55,856	56,625
11	Incumbent LECs	22,862	24,057	24,692
12	Other (Non-ILECs)	32,168	31,799	31,933
13	Local exchange telephone service (Switched Access Lines)	46,985	49,712	54,777
14	Incumbent LECs	36,669	39,309	42,401
15	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	10,316	10,403	12,375
16	Consumer-grade service	18,862	20,434	22,502
17	Incumbent LECs	17,774	19,180	21,088
18	Other (Non-ILECs)	1,088	1,254	1,413
19	Business & Government-grade service	28,123	29,278	32,275
20	Incumbent LECs	18,895	20,129	21,313
21	Other (Non-ILECs)	9,228	9,149	10,962
22	Interconnected VoIP Subscriptions - Note: Includes both Over-the-top (OTT) and All Other sub-categories.	66,063	66,585	64,479
23	Incumbent LECs	13,424	13,713	13,385
24	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	52,638	52,872	51,095
25	Consumer-grade service	39,156	40,006	40,130
26	Incumbent LECs	9,457	9,785	10,006
27	Other (Non-ILECs)	29,699	30,222	30,123
28	Business & Government-grade service	26,906	26,578	24,350
29	Incumbent LECs	3,967	3,928	3,378
30	Other (Non-ILECs)	22,940	22,650	20,971
31	Over-the-top interconnected VoIP	9,411	8,783	7,714
32	Incumbent LECs	67	71	96
33	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	9,344	8,712	7,618
34	Consumer-grade service	2,051	2,100	2,200
35	Incumbent LECs	2	3	3
36	Other (Non-ILECs)	2,049	2,097	2,197
37	Business & Government-grade service	7,360	6,683	5,515
38	Incumbent LECs	65	68	93
39	Other (Non-ILECs)	7,295	6,615	5,422
40	All Other interconnected VoIP	56,652	57,802	56,766
41	Incumbent LECs	13,357	13,642	13,289
42	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	43,295	44,160	43,478
43	Consumer-grade service	37,105	37,907	37,928
44	Incumbent LECs	9,455	9,782	10,003
45	Other (Non-ILECs)	27,650	28,125	27,925
46	Business & Government-grade service	19,546	19,895	18,838
47	Incumbent LECs	3,902	3,860	3,285
48	Other (Non-ILECs)	15,644	16,035	15,553
49	Local exchange telephone service by last-mile delivery medium	46,985	49,712	54,777
50	Fiber-to-the-premises	5,803	5,930	6,072
51	Incumbent LECs	3,732	3,886	3,839
52	Other (Non-ILECs)	2,072	2,043	2,234
53	Coaxial cable	532	639	781
54	Incumbent LECs	55	59	58
55	Other (Non-ILECs)	478	579	723

**Table 1. Voice Subscriptions (in Thousands) - Total for US**

Reference	Data element	June 2018	Dec 2017	June 2017
56	Terrestrial fixed wireless	32	27	26
57	Incumbent LECs	15	15	18
58	Other (Non-ILECs)	17	13	8
59	Copper local loop	40,617	43,117	47,897
60	Incumbent LECs	32,868	35,349	38,486
61	Other (Non-ILECs)	7,749	7,768	9,411
62	All Other interconnected VoIP by last-mile delivery medium	56,652	57,802	56,766
63	Fiber-to-the-premises	8,589	8,626	7,872
64	Incumbent LECs	6,177	6,072	5,623
65	Other (Non-ILECs)	2,413	2,553	2,249
66	Coaxial cable	34,761	35,643	35,059
67	Incumbent LECs	6	6	6
68	Other (Non-ILECs)	34,755	35,637	35,052
69	Terrestrial fixed wireless or satellite	112	116	81
70	Incumbent LECs	0	0	0
71	Other (Non-ILECs)	111	116	81
72	Copper local loop	13,190	13,417	13,755
73	Incumbent LECs	7,175	7,564	7,660
74	Other (Non-ILECs)	6,015	5,853	6,095
75	Non-Incumbent LEC local exchange telephone service by means of provisioning	10,316	10,403	12,375
76	Provided over owned last-mile facilities	3,510	3,783	4,244
77	Provided over UNE-L obtained from unaffiliated entity	1,529	1,689	1,783
78	Provided over other services obtained from unaffiliated entity	5,277	4,931	6,348
79	Incumbent LEC local exchange telephone service provided to unaffiliated carriers for resale	4,941	5,159	5,348
80	Wholesale lines	3,196	3,295	3,363
81	UNE-L	1,745	1,863	1,985
82	Local exchange telephone service and long-distance service	46,985	49,712	54,777
83	Consumer-grade service	18,862	20,434	22,502
84	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	11,840	12,425	13,623
85	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	5,933	6,754	7,465
86	Non-ILEC is preferred long-distance carrier for its local exchange service customer	941	1,034	1,167
87	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	147	221	247
88	Business & Government-grade service	28,123	29,278	32,275
89	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	10,280	10,919	11,519
90	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	8,615	9,210	9,794
91	Non-ILEC is preferred long-distance carrier for its local exchange service customer	6,949	7,102	8,009
92	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	2,279	2,046	2,953
93	End user buys local exchange telephone service and Internet access service from same entity	16,384	17,475	20,197
94	End user buys both services from incumbent LEC or affiliates	13,006	13,918	15,962
95	End user buys both services from Non-ILEC or affiliates	3,378	3,558	4,235
96	End user buys interconnected VoIP and Internet access service from same entity	52,013	52,958	52,109
97	End user buys both services from incumbent LEC or affiliates	13,000	13,307	13,234
98	End user buys both services from Non-ILEC or affiliates	39,013	39,651	38,874

**Table 2. Number of Providers Reporting Voice Subscriptions - Total for US**

Reference	Data element	June 2018	Dec 2017	June 2017
1	Mobile telephony	74	88	118
2	Directly-billed or prepaid	73	87	115
3	Not directly-billed or prepaid	11	12	18
4	Wireline End-User Switched Access Lines and Interconnected VoIP Subscriptions	1,823	1,764	1,725
5	Incumbent LECs	731	732	737
6	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	1,396	1,330	1,285
7	Consumer-grade service	1,233	1,228	1,243
8	Incumbent LECs	729	731	736
9	Other (Non-ILECs)	797	786	791
10	Business & Government-grade service	1,727	1,669	1,621
11	Incumbent LECs	726	725	732
12	Other (Non-ILECs)	1,297	1,235	1,182
13	Local exchange telephone service (Switched Access Lines)	995	993	1,015
14	Incumbent LECs	727	728	734
15	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	515	507	520
16	Consumer-grade service	898	895	912
17	Incumbent LECs	727	728	734
18	Other (Non-ILECs)	410	402	407
19	Business & Government-grade service	976	975	995
20	Incumbent LECs	723	723	730
21	Other (Non-ILECs)	492	489	500
22	Interconnected VoIP Subscriptions - Note: Includes both Over-the-top (OTT) and All Other sub-categories.	1,207	1,137	1,081
23	Incumbent LECs	116	118	108
24	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	1,160	1,089	1,040
25	Consumer-grade service	547	540	528
26	Incumbent LECs	55	60	52
27	Other (Non-ILECs)	513	504	497
28	Business & Government-grade service	1,118	1,045	984
29	Incumbent LECs	111	108	101
30	Other (Non-ILECs)	1,075	1,005	949
31	Over-the-top interconnected VoIP	738	682	630
32	Incumbent LECs	28	27	20
33	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	726	672	623
34	Consumer-grade service	162	169	166
35	Incumbent LECs	11	12	7
36	Other (Non-ILECs)	155	162	162
37	Business & Government-grade service	700	636	585
38	Incumbent LECs	26	22	18
39	Other (Non-ILECs)	690	631	580
40	All Other interconnected VoIP	698	671	652
41	Incumbent LECs	108	108	101
42	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	654	625	613
43	Consumer-grade service	445	433	414
44	Incumbent LECs	51	54	47
45	Other (Non-ILECs)	415	401	387
46	Business & Government-grade service	634	608	583
47	Incumbent LECs	103	100	95
48	Other (Non-ILECs)	594	568	549
49	Local exchange telephone service by last-mile delivery medium	995	993	1,015
50	Fiber-to-the-premises	752	738	721
51	Incumbent LECs	591	578	566
52	Other (Non-ILECs)	366	358	346
53	Coaxial cable	81	82	83
54	Incumbent LECs	19	20	21
55	Other (Non-ILECs)	70	72	72

**Table 2. Number of Providers Reporting Voice Subscriptions - Total for US**

Reference	Data element	June 2018	Dec 2017	June 2017
56	Terrestrial fixed wireless	82	72	72
57	Incumbent LECs	50	42	39
58	Other (Non-ILECs)	47	42	44
59	Copper local loop	790	799	838
60	Incumbent LECs	591	601	621
61	Other (Non-ILECs)	330	328	350
62	All Other interconnected VoIP by last-mile delivery medium	698	671	652
63	Fiber-to-the-premises	438	411	391
64	Incumbent LECs	95	92	88
65	Other (Non-ILECs)	399	372	356
66	Coaxial cable	214	212	209
67	Incumbent LECs	9	11	10
68	Other (Non-ILECs)	210	207	207
69	Terrestrial fixed wireless or satellite	233	225	211
70	Incumbent LECs	12	10	7
71	Other (Non-ILECs)	224	217	206
72	Copper local loop	227	237	225
73	Incumbent LECs	48	51	48
74	Other (Non-ILECs)	200	208	199
75	Non-Incumbent LEC local exchange telephone service by means of provisioning	515	507	520
76	Provided over owned last-mile facilities	379	376	380
77	Provided over UNE-L obtained from unaffiliated entity	112	113	121
78	Provided over other services obtained from unaffiliated entity	200	196	212
79	Incumbent LEC local exchange telephone service provided to unaffiliated carriers for resale	54	49	52
80	Wholesale lines	52	47	50
81	UNE-L	13	11	13
82	Local exchange telephone service and long-distance service	995	993	1,015
83	Consumer-grade service	898	895	912
84	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	677	676	679
85	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	678	678	679
86	Non-ILEC is preferred long-distance carrier for its local exchange service customer	384	378	376
87	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	275	266	277
88	Business & Government-grade service	976	975	995
89	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	674	672	676
90	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	657	654	662
91	Non-ILEC is preferred long-distance carrier for its local exchange service customer	447	449	453
92	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	318	313	329
93	End user buys local exchange telephone service and Internet access service from same entity	907	894	906
94	End user buys both services from incumbent LEC or affiliates	710	707	713
95	End user buys both services from Non-ILEC or affiliates	438	421	425
96	End user buys interconnected VoIP and Internet access service from same entity	634	607	591
97	End user buys both services from incumbent LEC or affiliates	103	102	93
98	End user buys both services from Non-ILEC or affiliates	590	563	553

## Technical Notes

### General

Detailed information about the current Form 477 reporting requirements is available at <https://www.fcc.gov/general/form-477-resources-filers>.

See Glossary for definitions of terms used in this report.

### Counting lines and subscribers

- Form 477 counts both switched access lines and interconnected VoIP subscriptions as the maximum number of calls that may be active, simultaneously, from the end user's location under the purchased service plan. All VoIP subscriptions discussed in this report are interconnected VoIP subscriptions.
- Form 477 data may not count all VoIP phone connections to Internet Protocol Private Branch Exchange (IP PBX) equipment that is owned by business end users because of the variety of ways the IP PBX may connect to the public switched telephone network.

### Holding company-subsidary relationships

- When counting service providers that report voice telephone service in a particular geography, we count a holding company or common-control entity no more than once in any specified sub-category of total providers.
- Nationwide counts of providers are unique counts for any specified sub-category of total providers (for example, all non-ILECs or all interconnected VoIP providers); an entity operating in multiple states is counted only once.

### ILEC-CLEC affiliations

- If a CLEC is affiliated with an ILEC and reports some end-user switched access lines or interconnected VoIP subscriptions in the ILEC's service area in the state, then the switched access lines or interconnected VoIP subscriptions reported by the CLEC are allocated between the ILEC and non-ILEC categories based on staff estimates.

### Mobile voice subscriptions

- Commercial mobile radio service (CMRS) carriers that own or operate wireless networks report both their retail voice service subscriptions and the retail subscriptions of the mobile voice service resellers that use their network. Mobile voice service resellers do not file Form 477.

### UNE-Platform lines replaced by commercial agreements

- UNE-Platform (UNE-P) was the combination of ILEC loop UNE, switching UNE, and transport UNE. The Commission directed CLECs to migrate their retail customers served by UNE-P to an alternative arrangement within 12 months of the effective date of the *Triennial Review Remand Order*, that is, by March 11, 2006. See C.F.R. § 51.319(d)(2)(ii). Such lines are reported on Form 477 as ILEC wholesale lines provided to unaffiliated providers for resale.

## Glossary

Term	Definition
All Other interconnected VoIP	Interconnected VoIP service other than OTT interconnected VoIP. (See the definition of OTT VoIP, below.)
Broadband connection	A wired line or wireless channel that terminates at an end-user location and enables the end user to receive information from and/or send information to the Internet at information transfer rates exceeding 200 kilobits per second in at least one direction.
Circuit switching	A method of completing electronic communications in which a transmission path is established for dedicated use by a communication; the basis of the public switched telephone network (PSTN).
Coaxial cable	The technology widely used by cable system operators to terminate their services at the end user's premises.
Copper local loop	The technology widely used by telephone companies to terminate their service at the end user's premises.
CLEC	Competitive Local Exchange Carrier: A local exchange carrier (LEC) that operates within the traditional service area of an unaffiliated incumbent LEC.
End users	Residential, business, institutional, or government entities that use services for their own purposes and who do not resell such services to other entities.
Fixed wireless service	A radio communication service between specified fixed points.
FTTP or FTTH	Fiber to the Premises (Home): A network access architecture in which optical fiber is deployed all the way to the customer's premises (home).
Internet access service	Service that provides end users access to the Internet.
ILEC	Incumbent Local Exchange Carrier: A company or cooperative that was providing telephone service in a localized area, typically on a monopoly basis, prior to enactment of the Telecommunications Act of 1996.
Internet protocol or IP	A language and set of formal rules that govern how packets transit the Internet.
Interconnected VoIP or iVoIP	A service that enables real-time, two-way voice communications; requires a broadband connection from the user's location; requires Internet-protocol compatible customer premises equipment; and permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.
LEC	Local Exchange Carrier: A company that provides telephone service within a localized area and access services that connect its customers to long-distance (Interexchange Carrier) networks.
Local loop	The physical connection between the customer's premises and the telephone company's local switching office, typically provided using copper, fiber, or a combination of copper and fiber facilities.
Mobile wireless service	A radio communication service between mobile and fixed stations, or between mobile stations.

Non-ILEC	Any provider of communications services who does not have ILEC regulatory status. A voice-service affiliate of an ILEC that is operating outside the ILEC's traditional service area ("study area") is a Non-ILEC.
OTT interconnected VoIP	Over-the-top interconnected VoIP: Service delivered to the end-user customer's premises over a high-capacity connection that the customer obtains (that is, buys), or has the use of, from an entity not affiliated with the interconnected VoIP service provider. (Colloquially, "bring-your-own-broadband.")
PBX	Private Branch Exchange: A communications switch that is owned or leased by the service provider's end-user customer and generally located on the customer's premises.
Packet switching	A method of completing electronic communications in which the information is disassembled into discrete packets that are transmitted independently and later reassembled; IP is an example.
Retail wireline voice telephone service	Switched access lines and interconnected VoIP subscriptions for which an end user is the customer.
Switched access line	A service connection between an end user and the local telephone company's switch; the basis of plain old telephone service (POTS).
UNE	Unbundled Network Element: A physical or functional element of an ILEC network that must be provided to a CLEC at a cost-based price, as provide for in the Telecommunications Act of 1996.
UNE-L	UNE-Loop: An ILEC unbundled local loop provided to a CLEC at a cost-based price.
Wholesale switched access lines	Local telephone service provided to an unaffiliated telephone company, which resells the service to end users; typically provided by an ILEC to a CLEC.



# Customer Response

Publication: *Voice Telephone Services: Status as of June 30, 2018*

You can help us provide the best possible information to the public by completing this form and returning it to the Industry Analysis Division of the FCC's Office of Economics and Analytics.

1. Please check the category that best describes you:
  - ☐ press
  - ☐ current telecommunications carrier
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  - ☐ business customer evaluating vendors/service options
  - ☐ consultant, law firm, lobbyist
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2. Please rate the report:
 

	Excellent	Good	Satisfactory	Poor	No opinion
Data accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Completeness of data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Text clarity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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3. Overall, how do you rate this report?
 

	Excellent	Good	Satisfactory	Poor	No opinion
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
  
4. How can this report be improved?
  
5. May we contact you to discuss possible improvements?  
 Name:  
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